U.S. Fish & Wildlife Service

Petition to List 29 Mollusks – 90-day Finding
Questions and Answers

Prepared by the Sacramento Fish and Wildlife Office, September 2011

Keeled jumping-slug *(Hemphillia burringtoni)*
Photo Credit: William Leonard

Puget Oregonian *(Cryptomastix devia)*
Photo Credit: William Leonard

Background on the Species:

The petitioned mollusks considered in this review include the following 29 species and subspecies: Basalt juga snail, Big Bar hesperian snail, canary duskysnail, Chelan mountainsnail, cinnamon juga snail, Columbia duskysnail, Columbia Oregonian snail, Crater Lake tightcoil snail, Dalles sideband snail, diminutive pebblesnail, evening fieldslug, Goose Valley pebblesnail, Hat Creek pebblesnail, Hoko vertigo snail, keeled jumping-slug, knobby rams-horn snail, masked duskysnail, nerite pebblesnail, nugget pebblesnail, Potem Creek pebblesnail, Puget Oregonian snail, Shasta chaparral snail, Shasta hesperian snail, Shasta pebblesnail, Shasta sideband snail, Siskiyou sideband snail, tall pebblesnail, Tehama chaparral snail, and Wintu sideband snail.

See the chart at the end of this document for a table that includes scientific names for the species and locations.

The 27 snails and two slugs occur in western Oregon and Washington and in Northern California, where the southernmost occurrence is in Butte County. California is home to 15 of the snail species, while Oregon has 10 snails and one slug, and Washington hosts eight snails and a slug. Six occur in two states. Oregon has 10 snails and one slug, and Washington hosts eight snails and a slug.

Almost all are less than an inch long and the smallest, the Diminutive pebblesnail, is less than one-tenth of an inch in size. It occurs in just two spring complexes in southwestern Oregon.

The snail species come in a variety of colors, from whitish to brown, with some green, yellow and even pinkish. They all have differing shell shapes and textures. One even has tiny hairs. The

basalt juga snail has gills. The keeled jumping slug is notable for writhing or flipping its tail to escape predators. Although some slugs have small internal shells, the keeled jumping slug is unusual in that it has a small shell visible to the human eye.

The snails and slugs are broadly classified as either terrestrial or aquatic, depending on whether they breathe air or water. The different mollusks have adapted to a wide ranges of conditions. Some live in the Olympic rainforest while others prefer semi-arid conditions. Some live in deep forests, others in drier oaklands. Some hide in talus slopes.

All are believed to have limited population numbers, based on known locations. The most widely distributed is the Siskiyou sideband snail, known at 223 widely scattered locations in northwestern California and southwestern Oregon. But 14 of the mollusks have been found in less than 10 locations each. And the tall pebblesnail, with a white and green conical shell less than a quarter-inch long, is found in only a single spring near Oregon's Upper Klamath Lake.

Q. What is the history of today's action?

A. On March 17, 2008, we received a petition from five conservation organizations asking us to list 32 species and subspecies of snails and slugs (the petitioned mollusks) in Washington, Oregon and northern California. The number of petitioned mollusks was later changed to 29 due to taxonomic revisions, as acknowledged in a signed email from the Center for Biological Diversity (CBD, the lead petitioning organization) amending the petition. We determined that the petition, and our files, present substantial information to indicate that listing 26 petitioned mollusks may be warranted.

All the petitioned mollusks had previously been protected when on Federal Land by the Survey and Manage Program of the Northwest Forest Plan. That program was discontinued in 2007. On December 18, 2009, a Federal judge upheld a suit brought by conservation groups challenging the discontinuation of the program. A settlement agreement in 2011 reinstated the 2001 Survey and Manage Program.

Q. Who petitioned the Service to list these species?

The Center for Biological Diversity, Conservation Northwest, the Environmental Protection Information Center, the Klamath-Siskiyou Wildlands Center, and Oregon Wild.

Q. What is the U.S. Fish and Wildlife Service's determination regarding the status of the 29 mollusks?

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A. We determined (after considering information already in our files) that the petition presented substantial information to indicate that listing 26 of the 29 mollusks as either threatened or endangered may be warranted. We will therefore proceed to a status review of those 26 mollusks to determine if listing is warranted.

Q. Why did the Service determine that the other three did not warrant listing based on the petition?

For the Crater Lake tightcoil and the Siskiyou Sideband we found: The reinstatement of the Survey and Manage Program, the withdrawal of a proposal to amend it, and the discovery of over 200 well distributed additional occupied sites since 2000, when several of the petition's cited sources were written, have addressed the concerns raised by the petition.

For the Tehama Chaparral we found: The petition did not provide sufficient information regarding the specific threats to areas occupied by the species. Also, the reinstatement of the Survey and Manage Program and the withdrawal of a proposal to amend it have addressed the concerns raised by the petition for this species.

Q. What are the threats to the petitioned mollusks?

A. Substantial information was presented to show potential threats from several factors, including logging; grazing; water pollution, diversion and impoundment; roads and development; climate change; increased vulnerabilities of small populations; pesticides; and fire.

Q. What is the process spelled out in the Endangered Species Act for evaluating petitions to list a species or subspecies?

A. The Act requires that the Service make a finding on whether a petition to list, delist, or reclassify a species or subspecies presents substantial information indicating that the petitioned action may be warranted. This finding is based on information contained in the petition, supporting information submitted with the petition, and information otherwise available to the Service at the time of the finding. To the maximum extent practicable, the Service makes this finding within 90 days of the receipt of the petition and publishes this 90-day finding promptly in the Federal Register. If the Service finds that substantial information was presented, it commences a review of the status of the involved species or subspecies which is to be completed, to the maximum extent practicable, within 12 months of receipt of the petition. In this 12-month finding, the Service determines whether listing is warranted.

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Q. What will happen after the 12-month review is completed?

A. Based on the status review, the Service will make one of three possible determinations:

1) Listing is not warranted, in which case no further action will be taken.

2) Listing as threatened or endangered is warranted. The Service then will publish a proposal to list, solicit independent scientific peer review of the proposal, seek input from the public, and consider the input before a final decision about listing the species is made.

3) Listing is warranted but precluded by other, higher priority activities. This means the species is added to the Federal list of candidate species, and the proposal to list is deferred while the Service works on listing proposals for other species that are at greater risk. A warranted but precluded finding requires subsequent annual reviews of the finding until such time as either a listing proposal is published, or a not warranted finding is made based on new information.

Q. How can I know which mollusks are in my area?

A. The species considered in this review included the following 29 species and subspecies, listed in order under the Service office responsible, are as follows:

- **Sacramento, CA:** Big Bar hesperian snail, Canary duskysnail, Cinnamon juga snail, Goose Valley pebblesnail, Hat Creek pebblesnail, Knobby rams-horn snail, Nugget pebblesnail, Potem Creek pebblesnail, Shasta chaparral snail, Shasta hesperian snail, Shasta pebblesnail, Shasta sideband snail, Siskiyou sideband snail, Tehama chaparral snail, Wintu sideband snail
- **Klamath Falls, OR:** Diminutive pebblesnail, Nerite pebblesnail, Tall pebblesnail
- **Portland, OR:** Basalt juga snail, Columbia duskysnail, Columbia Oregonian snail, Crater Lake tightcoil snail, Dalles sideband snail
- **Lacey, WA:** Evening fieldslug, Hoko vertigo, Keeled jumping-slug, Puget Oregonian snail
- **Spokane, WA:** Chelan mountainsnail, Masked duskysnail

See the chart below for more specific information on location.

COMMON NAME *SCIENTIFIC NAME*	NO. OF KNOWN SITES	LOCATION	TO BE STUDIED FURTHER
Basalt juga snail *Juga n. sp. 2*	28	Believed to be limited to springs in the central and eastern Columbia River Gorge in OR and WA.	Yes

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Big Bar hesperian snail *Vespericola pressleyi*	27	Trinity County, CA.	Yes
Canary duskysnail *Colligyrus convexus*	1 to 7	Pit River drainage in, Shasta County, CA.	Yes
Chelan mountainsnail *Oreohelix n. sp. 1*	104	Centered on the Wenatchee National Forest in Chelan County, WA.	Yes
Cinnamon juga snail *Juga n. sp. 3*	4 to 8	Found in the Shasta Springs complex (a network of hydrologically connected springs), on the upper Sacramento River, Siskiyou County, CA.	Yes
Columbia duskysnail *Lyogyrus n. sp. 1*	64	The central and eastern Columbia Gorge in Multnomah, Clackamas and Hood River Counties, OR, and Klickitat and Skamania Counties, WA	Yes
Columbia Oregonian snail *Cryptomastix hendersoni*	22 to 45	Found in Clackamas,Wasco, and Sherman Counties, OR, and Klickitat County, WA	Yes
Crater Lake tightcoil snail *Pristiloma arcticum crateris*	209	Found in Crater Lake National Park, and the Umpqua, Winema, Deschutes, and Mount Hood National Forests, OR	No
Dalles sideband snail *Monadenia fidelis minor*	98	Distributed along the Columbia Gorge and Deschutes River in Wasco County, OR, and Klickitat County, WA.	Yes
Diminutive pebblesnail *Fluminicola n. sp. 3*	6	Found in two large spring complexes (Fall Creek and Jenny Creek watersheds) in the middle Klamath River Drainage, in Jackson County, OR.	Yes
Evening fieldslug *Deroceras hesperium*	20 sites, 4 sites believed extinct	Scattered across the OR Cascades and northern Coast Range, extending north through western WA and into Vancouver Island, B.C.	Yes
Goose Valley pebblesnail *Fluminicola anserinus*	4	Found in three springs and a section of creek in the lower Pit River drainage, Shasta County, CA.	Yes

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Hat Creek pebblesnail *Fluminicola umbilicatus*	3	Found near Lost Creek and Hat Creek in the Lassen National Forest, Shasta County, CA.	Yes
Hoko vertigo snail *Vertigo n. sp. 1*	2	Found near the Hoko River in Clallam County, WA.	Yes
Keeled jumping-slug *Hemphillia burringtoni*	62	Found in Clallam, Jefferson, Grays Harbor, Mason, Pacific, and Skamania Counties, WA and Clatsop County, OR	Yes
Knobby rams-horn snail *Vorticifex n. sp. 1*	2	Found in a large, pristine spring complex in the Pit River drainage, Shasta County, CA.	Yes
Masked duskysnail *Lyogyrus n. sp. 2*	3 to 4	Curlew Lake, Ferry County and Fish Lake, Chelan County, WA.	Yes
Nerite pebblesnail *Fluminicola n. sp. 11*	19	Fall and Jenny Creek watersheds, located in the middle Klamath River Drainage, Jackson County, OR.	Yes
Nugget pebblesnail *Fluminicola seminalis*	15 to 22	Found in the Pit and McCloud River drainages in Shasta County, CA.	Yes
Potem Creek pebblesnail *Fluminicola potemicus*	12	Found in the upper Sacramento River system and Pit River tributaries in Shasta County, CA.	Yes
Puget Oregonian snail *Cryptomastix devia*	177	Found in WA and OR, with most occupied sites located in the Cowlitz and Cispus River drainages in southwestern WA.	Yes
Shasta chaparral snail *Trilobopsis roperi*	146	Shasta County, CA.	Yes
Shasta hesperian snail *Vespericola shasta*	78	Upper Sacramento River watershed, Shasta County, CA.	Yes
Shasta pebblesnail *Flumenicola multifarius*	36	Found in the upper Sacramento River watershed in Shasta County, CA.	Yes
Shasta sideband snail *Monadenia troglodytes troglodytes*	9	Found along McCloud River Arm of the Shasta Lake, CA	Yes
Siskiyou sideband snail *Monadenia chaceana*	223	Found scattered widely across southwestern OR and northwestern CA.	No
Tall pebblesnail *Fluminicola n. sp. 2*	1	Harriman Spring, along the margin of Upper Klamath Lake, Klamath County, OR.	Yes

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Tehama chaparral snail *Trilobopsis tehamana*	12	Tehama, Butte and Siskiyou Counties, CA	No
Wintu sideband snail *Monadenia troglodytes wintu*	8	Found along the Pit River arm of the Shasta Lake, CA.	Yes

More questions? Write or call:

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